

Houston Pilots Forecast Package



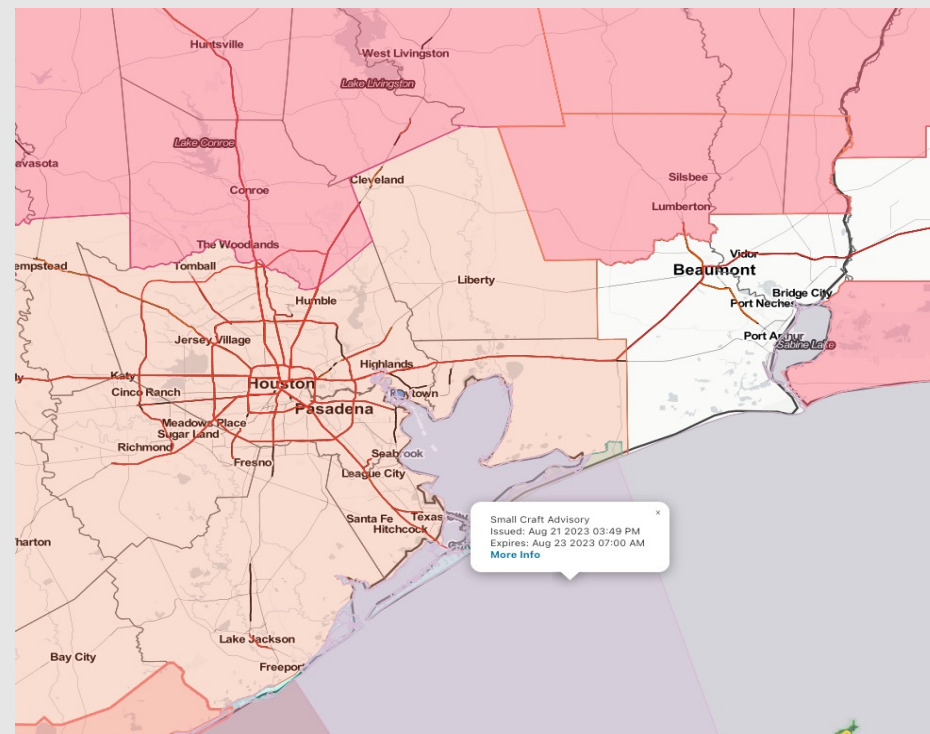
Updated: 10:00 PM CT

Monday, August 21, 2023

Forecaster: Jonathan Kipper

Weather Headlines

- Tropical system expected to stay south. However, wave heights near 6' will be possible, mainly into TUE AM for Boarding Station.
- Bulk of precipitation chances look to go south. However, scattered storms will still be possible.
- A few minor precipitation chances exists later into the week with limited wind issues.



Radar/NWS Alerts: 10:00 PM CT



As always, please do not hesitate to reach out to us with any forecast questions via the chat option on the Weather Porthole or our on-call number, **(317)-560-8122** press 1 for forecast questions.

Houston Pilots Tropical Update

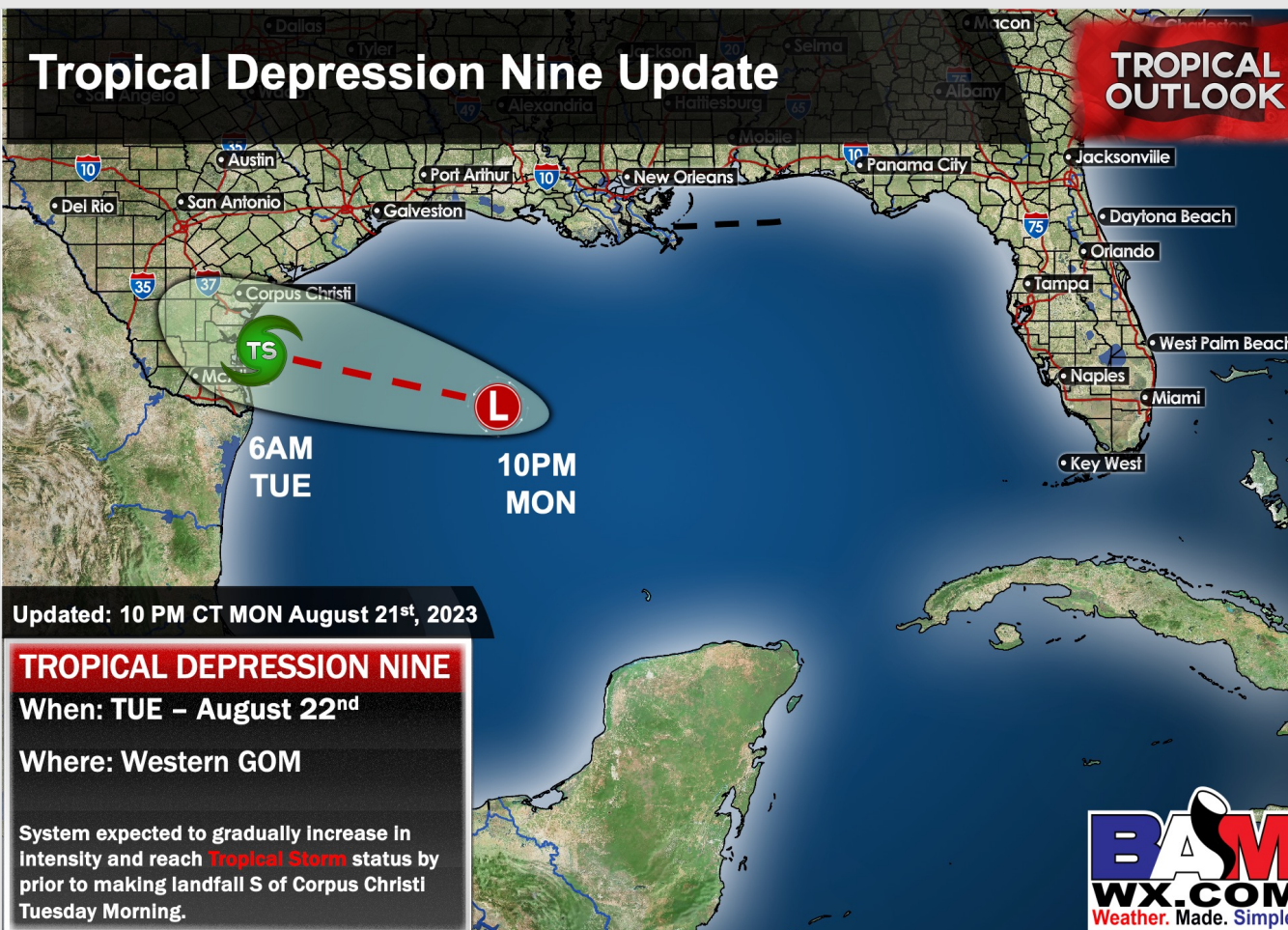
Port Condition	34 KTS+ Sustained Winds	6 Foot Waves	Time Remaining/Trigger End
Victor	N/A	N/A	N/A
Whiskey	N/A	N/A	N/A
X-Ray	N/A	N/A	N/A
Yankee	N/A	N/A	N/A
Zulu	NO	IN EFFECT	1 PM CT TUE

Port Condition	Trigger Definition	Trigger Reached?
Victor	Hurricane entering/developing in Gulf of Mexico that's a threat to the area	No
Whiskey	72 hours prior to predicted sustained winds of 34+ KTS	No
X-Ray	48 hours prior to predicted sustained winds of 34+ KTS or 6' wave height	Yes
Yankee	24 hours prior to predicted sustained winds of 34+ KTS or 6' wave height	Yes
Zulu	12 hours prior to predicted sustained winds of 34+ KTS or 6' wave height	Yes

- **Data continues to maintain 5-6' wave height potential associated with TUE tropical depression toward the HOU area.** While there is lower confidence the 6'+ wave height threshold is met for nearshore stations, data trends have made this an associated risk relating to storm swells as a result of incoming storm.
- **The timing most at risk to see these increased wave heights would be 4 AM to 1 PM TUE.** The boarding station is at greatest risk to see these wave heights. **ALL OTHER STATIONS WILL REMAIN WELL BELOW 6' THRESHOLD WITH HIGH CONFIDENCE.**
- **The core of the tropical system will make landfall toward TX/MX border.**

Houston Pilots Tropical Update

Tropical Depression Nine System Track



Tropical Depression 9 expected to reach Tropical Storm Status by early evening. Hurricane development is not favored.

Regardless, this system is anticipated to make **landfall well south of the Houston area** with very good model agreement/consensus. Current timing is around 6 – 9 AM TUE morning for this to occur.

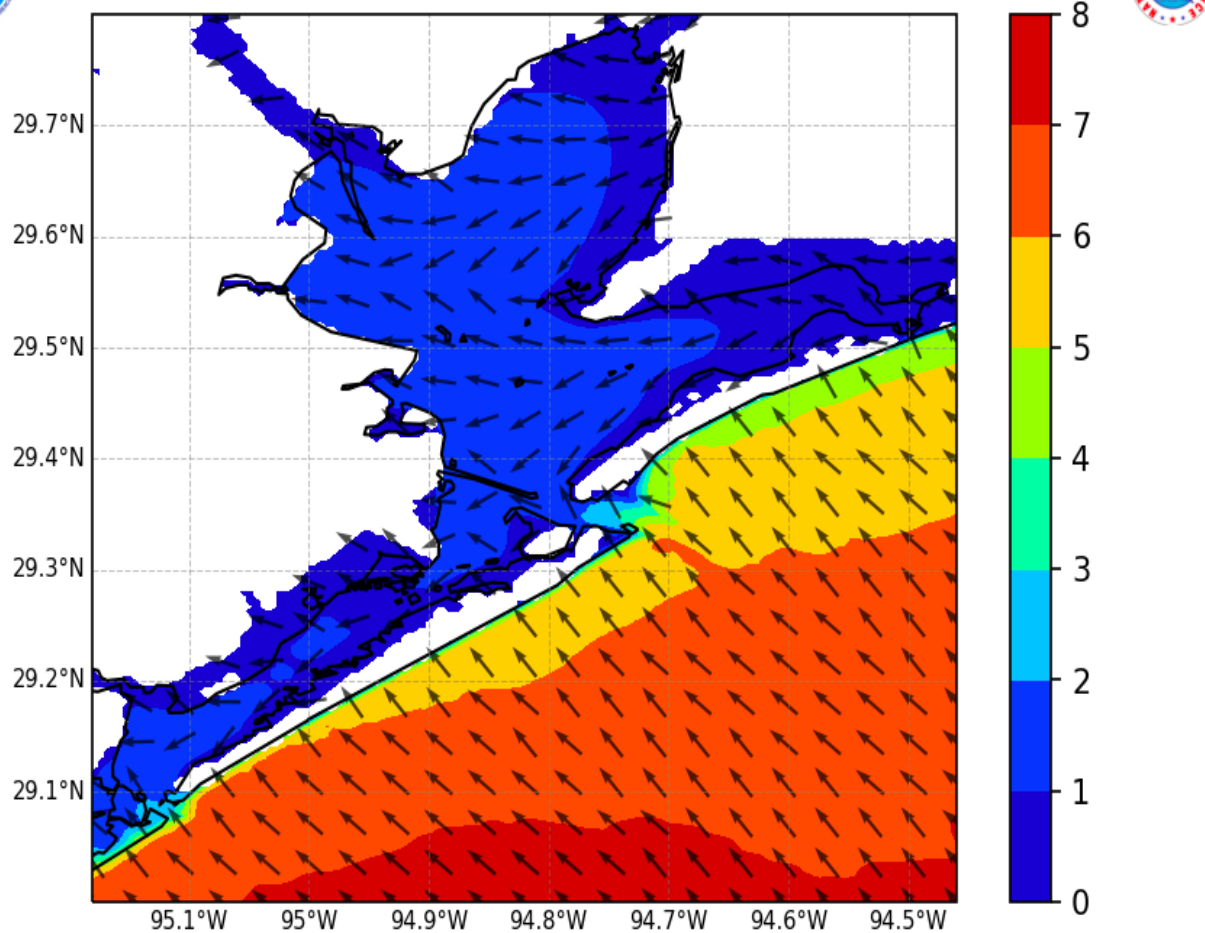
Winds at Houston will be elevated from this system allowing for sustained winds around 20 – 25 knots in general with gusts of 25-30 knots to locally 35 knots.

Of greatest concern will be wave heights. Significant Wave heights will be flirting with the 6' threshold. With current anticipation for a general 5 – 6' wave heights tomorrow morning/ afternoon (more info on the following slide).

Houston Pilots Tropical Update

Significant Wave Heights at 7 AM CT TUE

NWPS Significant Wave Height (ft) and Peak Wave Direction
Hour 30 (12Z22AUG2023)



The image to the left shows the peak wave heights and peak wave direction associated with the incoming tropical system.

The best time frame for peak wave heights in the 5' – 6' range are 4 AM TUE – 1 PM TUE.

Houston Pilots Visibility Chart (miles)



Time	Mon 8pm	Mon 9pm	Mon 10pm	Mon 11pm	Tue 12am	Tue 1am	Tue 2am	Tue 3am	Tue 4am	Tue 5am	Tue 6am	Tue 7am	Tue 8am	Tue 9am	Tue 10am	Tue 11am	Tue 12pm	Tue 1pm	Tue 2pm	Tue 3pm	Tue 4pm	Tue 5pm	Tue 6pm	Tue 7pm	Tue 8pm	Tue 9pm	Tue 10pm	Tue 11pm	Wed 12am	Wed 1am	Wed 2am	Wed 3am	Wed 4am	Wed 5am	Wed 6am	Wed 7am	
610 Bridge	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	6	6	5
Kinder 1	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	7	7	5
Greens Bayou	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	8	8	6
Shell Crude	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	8	8	8
Lynchburg Ferries	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	8	8	8
Exxon 3	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	8	8
Morgans Point	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	9
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1 & 2 Bravo	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

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Houston Pilots Wind Chart



Sustained wind 13 Knots
Gusts 18 Knots
Wind from the N

Example

WS: 13
G:18
N

Time Knots	Mon 8pm	Mon 9pm	Mon 10pm	Mon 11pm	Tue 12am	Tue 1am	Tue 2am	Tue 3am	Tue 4am	Tue 5am	Tue 6am	Tue 7am	Tue 8am	Tue 9am	Tue 10am	Tue 11am	Tue 12pm	Tue 1pm	Tue 2pm	Tue 3pm	Tue 4pm	Tue 5pm	Tue 6pm	Tue 7pm	Tue 8pm	Tue 9pm	Tue 10pm	Tue 11pm	Wed 12am	Wed 1am	Wed 2am	Wed 3am	Wed 4am	Wed 5am	Wed 6am	Wed 7am	
610 Bridge	11	10	9	8	8	8	8	7	7	8	9	9	10	11	11	12	13	14	14	14	14	14	14	13	11	9	7	6	5	4	3	2	2	2	2	2	2
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Kinder 1	16	15	14	13	12	12	11	10	11	12	13	13	15	16	17	18	19	20	21	21	21	22	21	19	17	14	11	9	8	7	6	5	4	2	2	2	2
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Greens Bayou	16	15	14	13	11	12	11	10	11	12	13	13	15	16	17	17	18	19	20	20	21	21	20	19	17	14	11	9	8	7	6	5	4	2	2	2	2
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Shell Crude	16	14	14	13	11	12	12	11	11	12	13	13	15	16	17	17	18	19	20	21	21	21	20	19	16	13	11	10	8	7	6	5	4	3	2	3	3
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Houston Pilots: Tue. 8/22/2023

Forecast Discussion

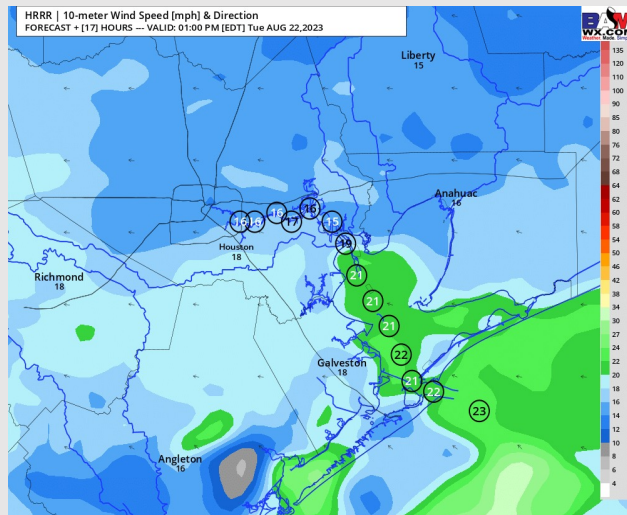
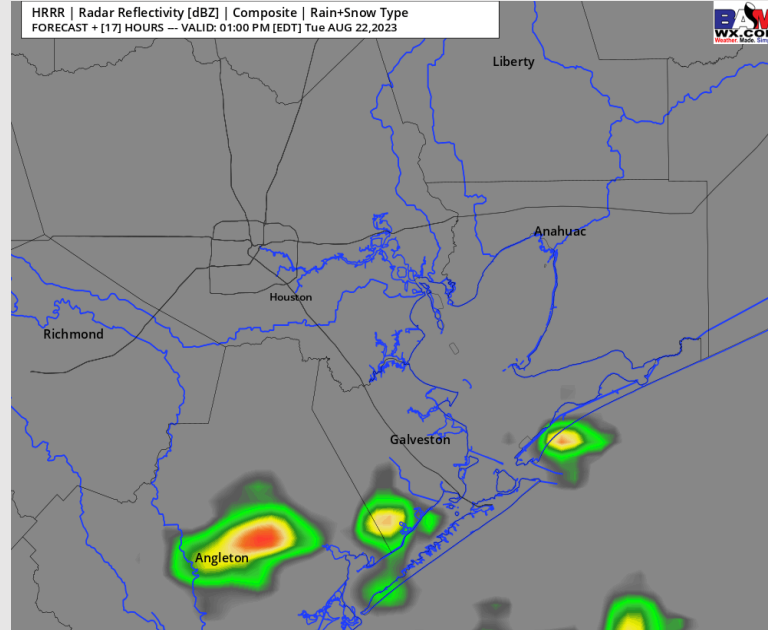
Precip: Continue to favor the bulk of storms to stay south of Houston. However, a few scattered storms will be possible starting between 7 AM (around 20%). Into the afternoon about 25% chances exist through about 7 PM.

Wind: ESE winds continue to drive into the HOU area through the morning hours of TUE. Towards the boarding station, winds are expected to be 17 – 23 knots sustained with gusts near 26 – 30 knots, locally up to 35 knots. Between Morgan's point and the boarding station, sustained winds are expected to generally be 14 – 19 knots sustained with gusts up to 23 – 28 knots and will have more of an easterly component. Winds into the afternoon will start to gradually wane after 2 – 4 PM for locations south of Morgan's Point. By 6 PM, winds are expected to be from the SE sustained around 13 – 17 knots for locations south of Morgan's Point with gusts near 20 knots possible. Winds north of Morgan's Point anticipated to be 3-8 kts through 10 AM before gradually increasing to 12-17kts by 12 PM and continuing the rest of the day (gusts up to 22 kts possible in afternoon).

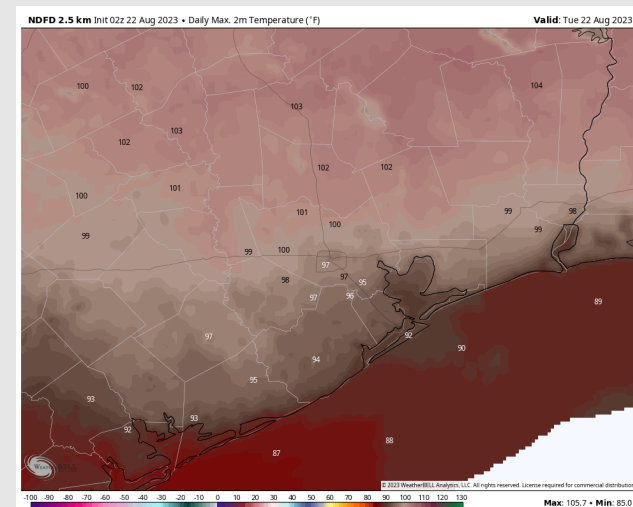
High Temps: S of Morgan's Point: Low 90's F. N of Morgan's Point: Mid-to-upper 90's F.

Visibility: Brief Periods of reduced visibility near the Boarding Station associated with heaviest downpours.

Precip Image: 12 PM CT



Wind Speed:
12 PM CT



High Temps
Tuesday

Houston Pilots: Wed. 8/23/2023

Forecast Discussion

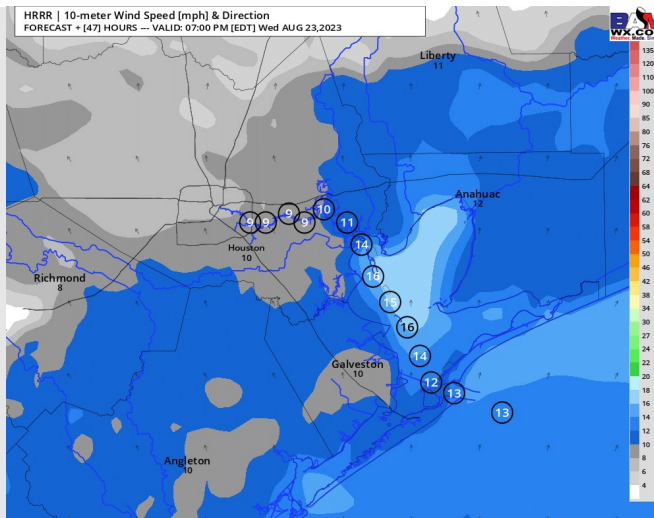
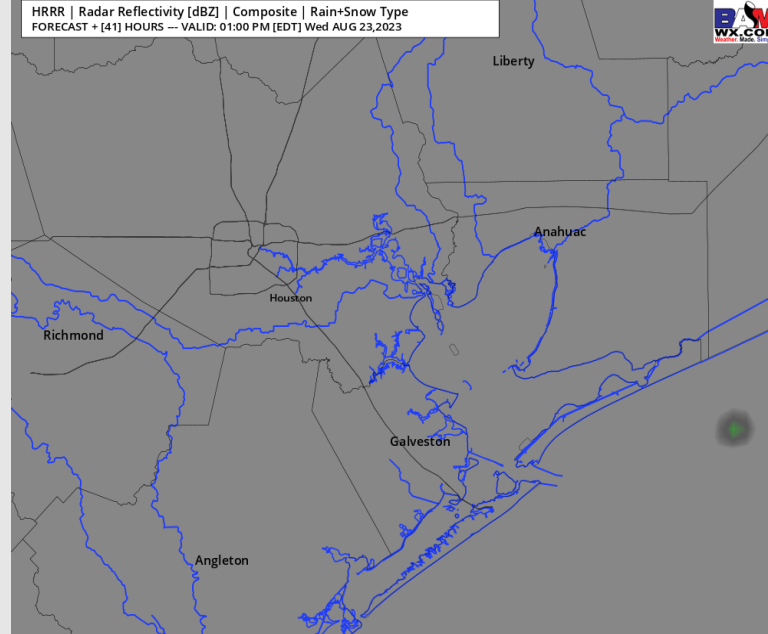
Precip: Dry weather is favored on Wednesday outside of a 10% risk of a passing shower during the 12-5 PM timeframe.

Wind: Winds will be out of the SE WED before shifting to out of the NE by 10 AM. Through 5 PM, winds will gradually veer until out of the S/SW the rest of the day. Winds N of Morgan's Point will be 2-7kts through 4 PM before increasing to 5-10kts the rest of the day. S of Morgan's Point, winds will decrease from 8-13 kts to 2-7kts by 7 AM and remain there until 4 PM. After 4 PM, winds increase to 10-15kts the rest of the day.

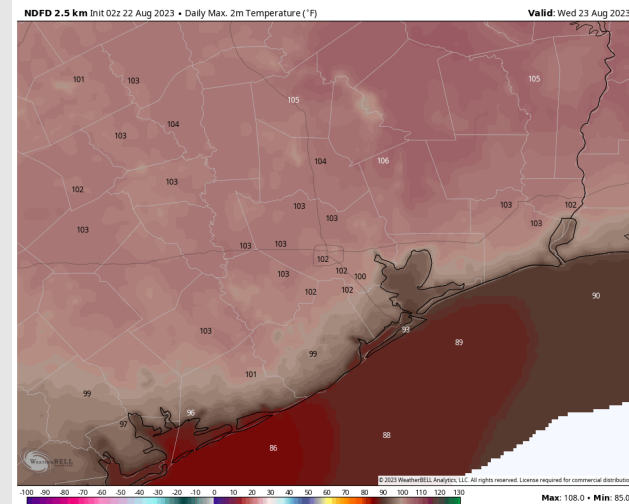
High Temps: S of Morgan's Point: Low 90s F. N of Morgan's Point: Upper 90s/Near 100 F.

Visibility: Low end risk of patchy fog between 4-8 AM CT WED (not anticipated to be a widespread threat).

Precip Image: 4 PM CT



Wind Speed:
6 PM CT



High Temps
Wednesday

Houston Pilots: Thu. 8/24/2023

Forecast Discussion

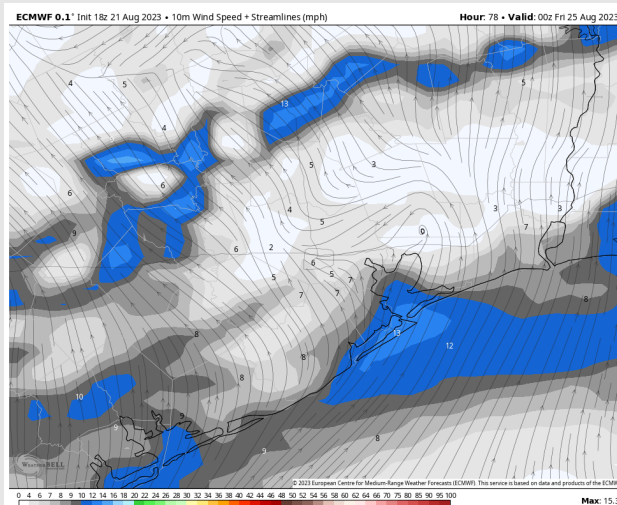
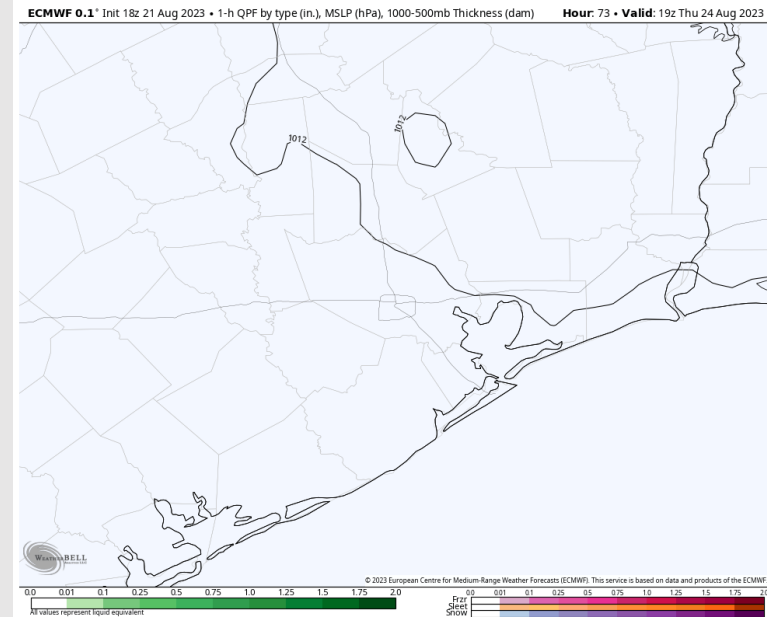
Precip: Dry conditions anticipated on Thursday.

Wind: Winds will start out of the W/SW in the early morning before veering to out of the NW by 5 AM. After 12 PM, winds will gradually shift to being out of the SW by 5 PM and continue there the rest of the evening. Winds North of Morgan's Point will be 3-8 kts the entire day. Winds South of Morgan's Point will be 7-12 kts throughout the entire day outside of a slight decrease to 4-9kts from 11 AM – 3 PM.

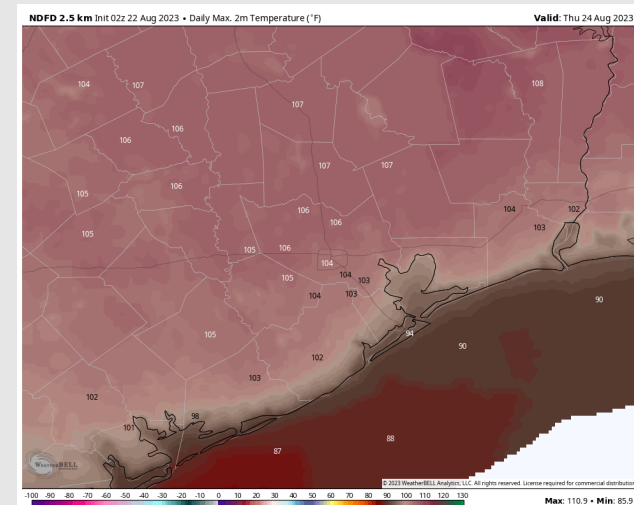
Low Temps: S of Morgan's Point: Low 90's F. N of Morgan's Point: Low 100s F.

Visibility: No visibility issues expected on Thursday.

Precip Image: 2 PM CT



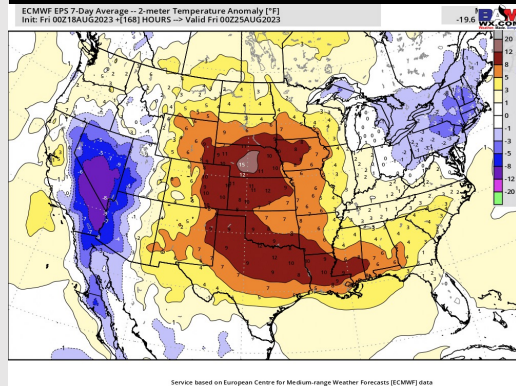
Wind Speed:
7 PM CT



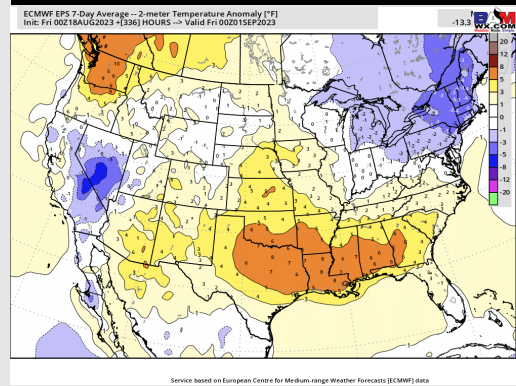
High Temps
Thursday

Houston Pilots: 8/21/23

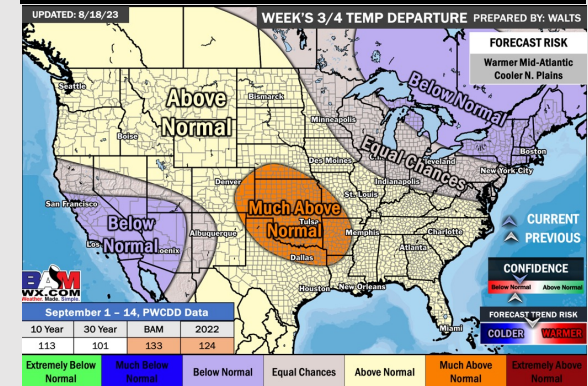
Next 7 Day Temperature Departure



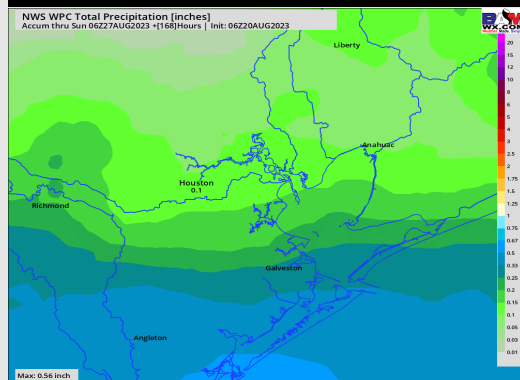
8-14 Day Temperature Departure



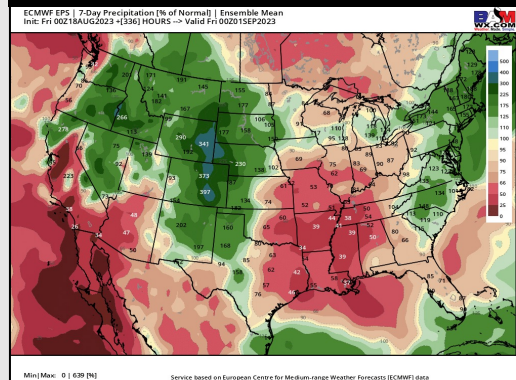
15-30 Day Temperature Departure



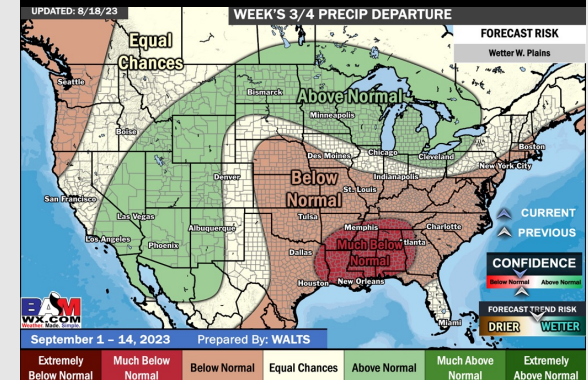
Next 7 Day Total Precipitation



8-14 Day % of Average Precip.



15-30 Day % of Average Precip.



- Tuesday will be the “best” precip chance over the next several days with only minor/ isolated chances deeper into the week.
- Expecting below normal precipitation chances and above normal temperatures for the week 2 timeframe.
- Above normal temperatures and below normal chances for precipitation are favored in the weeks $\frac{3}{4}$ timeframe.